SHORT COMMUNICATIONS

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FIRST RECORD OF CHROMATIC ABERRATIONS IN THE CREAM-BACKED WOODPECKER (*CAMPEPHILUS LEUCOPOGON*, PICIDAE)

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Primer registro de aberraciones cromáticas en el Carpintero Negro de Dorso Blanco (*Campephilus leucopogon*, Picidae).

Key words: Argentina, *Campephilus leucopogon*, Chaco, Cream-backed Woodpecker, leucism, progressive graying.

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INTRODUCTION

According to van Grouw (2013), leucism and progressive graying are types of plumage aberrations defined as the partial or total lack of melanin in feathers and skin, which may result in an all-white plumage or all-white feathers mixed with normally colored ones. The distribution of white feathers varies from only few feathers to a full-white plumage. In birds with completely leucistic plumage, the skin is colorless, in partially leucistic plumages as well as in birds with progressive graying the skin and bill usually is of normal color. All birds with progressive graying and leucistic plumage have normally colored eyes, which differentiate them from albino birds (van Grouw 2006).

Leucism and progressive graying are hard to distinguish (van Grouw 2013). The main difference between both conditions is that leucism is heritable, whereas progressive graying may or may be not. Furthermore, whereas the white pattern in leucistic birds is often patchy and bilaterally symmetrical, in early-stage progressive greying the white feathers are more or less randomly spread over the plumage. Finally, progressive graying is more common than leucism.

The Cream-backed Woodpecker (*Campephilus leucopogon*) is endemic to the Chaco region (Winkler & Christie 2002, Erize *et al.* 2006), which is one of the South American key dry forest systems. Both sexes share an ivory-colored bill, a red head and neck, white or cream back, and black body plumage, with

exception of the black-and-white underwing coverts and the buffy cinnamon base of the flight feathers (Erize *et al.* 2006). To my knowledge, there are no published reports of plumage aberrations in the Cream-backed Woodpecker.

Particularly in woodpeckers, reports of aberrant plumages have become more interesting after the alleged rediscovery of the Ivory-billed Woodpecker (*Campephilus principalis*), a large woodpecker from North America and the Caribbean suspected to be extinct (Fitzpatrick *et al.* 2005). The records of the Ivory-billed Woodpecker presented by Fitzpatrick *et al.* (2005) were criticized by some authors, who believed that the sightings could correspond to a Pileated Woodpecker (*Dryocopus pileatus*) with aberrant plumage, approximately matching the pattern of the Ivory-billed Woodpecker (e.g., see review in Jackson 2006). Here, I report the first documented record of a Cream-backed Woodpecker with chromatic aberrations, which is compatible with partial leucism or progressive graying.

METHODS

All observations were performed on 8 March 2015, in Los Molles, Department of San Javier, Córdoba, Argentina (31°57'35.62"S, 64°59'38.51"W, 1040 m a.s.l.), during a general ornithological survey. The overall landscape in the area is hilly, with well-preserved xeric forest (Chaco forest) dominated by the trees *Prosopis* sp. and *Acacia* sp. Humid forest with high abundance of *Celtis* sp. and *Lithraea molleoides* trees can be found in some places near creeks.

To assess the prevalence of specimens with similarly aberrant plumage, I screened ornithological collections representative of the Chaco avifauna at the following museums: Museo Argentino de Ciencias Naturales (Buenos Aires, Argentina), Museo de La Plata (La Plata, Argentina) and Museo de Historia Natural Noel Kempf Mercado (Santa Cruz, Bolivia). Two other persons, Luis Pagano and Miguel Aponte, helped to screen skins at La Plata and at Kempf museums, respectively. I identified and named flight feathers (i.e., primary or secondary remiges) of the photographed specimen by comparison with museum specimens. Since I was not able to collect the bird, all descriptions are based on photographic records.

RESULTS AND DISCUSSION

I observed and photographed an adult male of the Cream-backed Woodpecker with aberrant white feathers (Fig. 1). The specimen had most of the diagnostic plumage features of this species, such as a white back, an unbarred chest and abdomen, black tail, and a full red head with the typical black-and-white ear patch that characterizes males of most species of *Campephilus*. The irides were yellow, the bill ivory, and the feet grayish, as characteristic of the species.

However, the specimen also presented features typical of partial leucism or progressive graying (conditions hard to differentiate, henceforth partial leucism/progressive graying), i.e., light-colored feathers that are expected to be black according to the normal plumage. Specifically, it presented spots of two to five white feathers in the upper wing-coverts, which should be black in normal individuals (Fig. 1A). Scapulars were brownish white instead of black. The lateral and hind neck, chest, breast, belly, thighs, and uppertail coverts were blotched brown with a black background, instead of fully black. Besides, the right wing presented the last four external feathers (including alula), and a set of at least two middle secondary feathers, brownish white instead of fully black (Fig. 1B). Even though I observed white feathers in the left wing, it is not clear if the wing pattern was

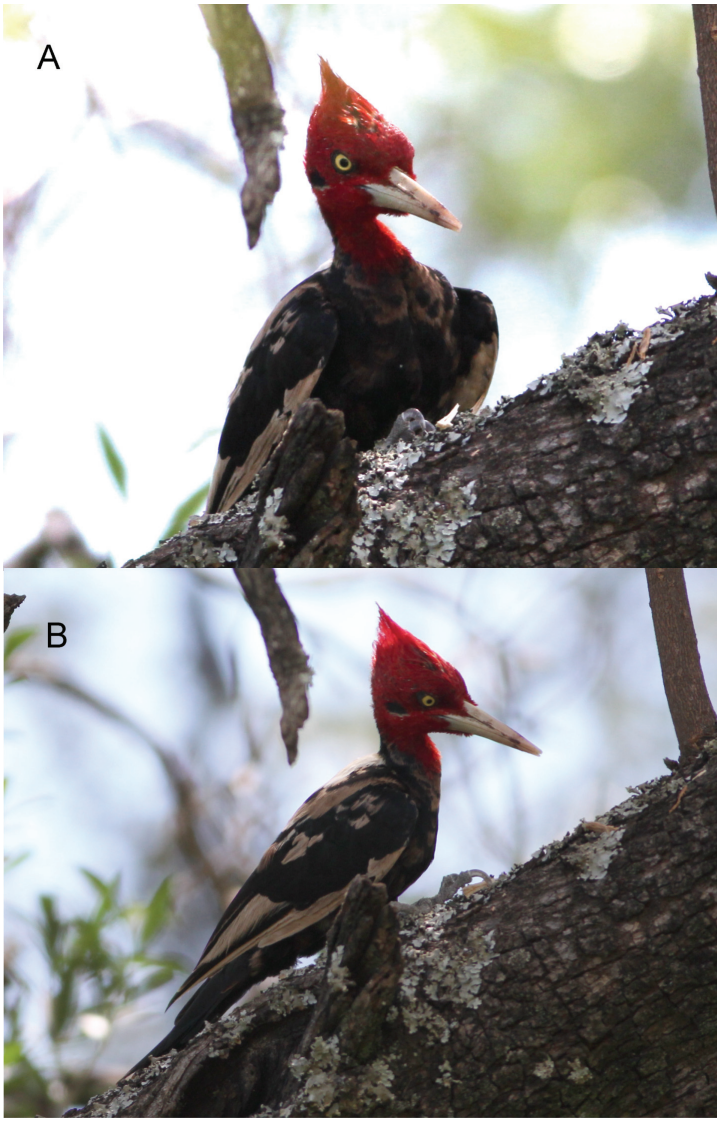

FIG. 1. Leucism/progressive graying in a Cream-backed Woodpecker (*Campephilus leucopogon*) from Los Molles, Argentina. A) Chest and ventral body regions of the plumage-aberrant specimen; B) Details of the dorsal and lateral body region. Photographs by the author.

symmetric because I was only able to obtain photographs of the right side of the bird. Underwing coverts had patches of cream-white (marginal coverts) and black, but it was not clear if the distribution of each color was abnormal (Fig. 1A). Finally, I was unable to observe if the base of the flight feathers was cinnamon, as in the case of normal-plumaged individuals.

This is the first record of aberrant white feathers in the Cream-Backed Woodpecker, as the study failed to find any similarly colored

specimen in a sample of museum skins (n = 113), nor any mention of such case in the literature. This suggests that aberrant-plumaged birds have a low frequency in the species, as occurs in most of all birds (Sage 1963, Guay *et al.* 2012).

In addition, the observation seems to be the first record of an aberrant plumage for the genus, because I also failed to find specimens with, or published reports of, abnormal plumages in other species of *Campephilus*. Specifically, I studied specimens (n = 105) of Crimson-crested Woodpecker (*C. melanoleucus*), Red-necked Woodpecker (*C. rubricollis*), Robust Woodpecker (*C. robustus*), and Magellanic Woodpecker (*C. magellanicus*). The only exception was a report on a putative hybrid Cream-backed Woodpecker x Crimson-crested Woodpecker (*C. melanoleucus*) (Contreras Chialchia & Smith 2014). It is unlikely that the specimen reported here was a hybrid, because its plumage characteristics did not match combined features of any pair of woodpeckers that occur in the study region and that are comparable in size (i.e., White Woodpecker *Melanerpes candidus*, Black-bodied Woodpecker *Dryocopus schulzi,* Green-barred Woodpecker *Colaptes melanochloros*, and Campo Flicker *C. campestris*). In addition, the possibility of it being a young specimen was also discarded, because young males of the Cream-backed Woodpecker have a white malar line and black throat like females, in addition to a full red crown and an adult-like basic plumage (Winkler & Christie 2002, this study). Hence, this is the first description of partial leucism/progressive graying in the Cream-backed Woodpecker, and likely the first case for *Campephilus*.

Aberrant plumages (i.e., partial leucism/progressive graying) seem to be more frequent in *Dryocopus* than in *Campephilus*, as suggested by the existence of a few reports of leucistic Pileated Woodpeckers (Fitzpatrick *et al.* 2005, Lammertink *in litt.*). However, this apparent disparity may result from observation biases across the geographic range of each taxon (e.g., higher effort in the range of Pileated Woodpeckers).

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